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Amdt. dated January 3, 2007
Reply to Office Action of September 5, 2006

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REMARKS/ARGUMENTS

Before this Amendment, claims 1-13 were present for examination. Claims 4, 8, and 12 are amended. Therefore, claims 1-13 are present for examination, and claims 1, 8, 9, 10, 11, 12, and 13 are the independent claims. No new matter is added by these amendments. Applicant respectfully requests reconsideration of this application as amended.

The Office Action has rejected claims 1-13 under 35 U.S.C. §102(b) as being anticipated by the cited portions of Axberg et al., U.S. Patent 6,009,466 ("Axberg"). The Office Action has rejected claim 4 under 35 U.S.C. §112, second paragraph as being indefinite. The Office Action has rejected claims 8 and 12 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

35 U.S.C. §101 Rejections

The Office Action initially rejected claims 8 and 12 as being directed to non-statutory subject matter. While counsel for the applicants respectfully traverses that previously submitted claims 8 and 12 did not recite statutory subject matter, the claims have been amended to more particularly recite structural features that clearly fall within statutory subject matter. For example, claim 8 has been amended to recite a "computer storage system" which is obviously statutory subject matter. And, claim 12 has been amended to recite that the software in claim 12 is stored on a computer readable medium, which is also recognized as statutory subject matter. See, e.g., In re Beauregard, 417 F.3d 1583 (Fed. Cir. 1995). Therefore, claims 8 and 12 are believed to clearly recite statutory subject matter.

35 U.S.C. §112 Rejection

Claim 4 was initially rejected as being indefinite for antecedent basis reasons. Claim 12 has been amended to recite "a second connection" rather than "said second connection". This clarifies the claim and resolves the antecedent basis issue.

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35 U.S.C. §102(b) Axberg

The Office Action has rejected claims 1-13 under 35 U.S.C. §102(b) as being anticipated by the cited portions of Axberg.

In regard to claim 1, the Axberg reference does not teach "a communication unit for transmitting said first connection information to said management computer." The Office Action cited Axberg at column 9, lines 8-9 and column 9, lines 31-35 for this element. However, those lines merely state the following:

"Connection class 513 is used to provide information on the bus or link that is connecting PhysicalDevice objects." Axberg at column 9, lines 8-9.

"Host class 515 is used to define a host system, i.e., a system in which at least one internal controller or initiator adapter resides. Only a host system having such an I/O controller can be connected to a storage network." Axberg at column 9, lines 31-35.

The claim element at issue, i.e., "a communication unit for transmitting said first connection information to said management computer" is recited in claim 1 as comprising part of the storage system of claim 1. The storage system of claim 1 is recited as being different from the management computer of claim 1. Thus, the Office Action is incorrect in citing Axberg's host system/internal controller/initiator adapter as teaching a part of applicants' storage system, since the reference to the internal controller/initiator adapter in Axberg at column 9, lines 31-35 is discussing an I/O controller residing in the host system and used to connect to a storage network -- it is not a discussion of a communication unit residing in a storage system for transmitting connection information to a management computer. Thus, it is clear that the cited portion of Axberg does not teach the claim element "a communication unit for transmitting said first connection information to said management computer" that is part of a storage system. For

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at least this reason, claim 1 is believed to be in condition for allowance. Claims 2-7 depend from claim 1. Therefore, claims 2-7 should be in condition for allowance for at least the same reason.

Claim 8 is an independent claim that recites a storage system. The same reason noted above in regard to claim 1 also applies to claim 8. Namely, the Office Action cited Axberg at column 9, lines 8-9 and column 9, lines 31-35 for the element "a communication unit for transmitting said first connection information to a management computer." As was noted above in regard to claim 1, these citations from Axberg do not teach the quoted element from claim 8. Thus, the rejection of claim 8 is respectfully traversed as claim 8 is believed to be in condition for allowance.

In regard to claim 9, the Axberg reference does not teach "a communication unit for receiving first connection information, which contains a communication port identifier of said object computer, and a communication port identifier assigned to the communication port of said storage system, from said storage system." The Office Action attempted to show this feature by combining six citations from Axberg. Those citations state the following:

"Bus 403 is used for communicating data among various

components of system 111. Network adapter 405 coupled to

system bus 403 is connected to network communications medium

115, allowing system 111 to communicate with other systems in

the information processing network. " See Axberg at column 6,

lines 29-34.

"FIG. 4 is a block diagram showing the major components of a

typical host system 111, which is directly connected to network

101, in accordance with the preferred embodiment. Central

processing unit (CPU) 401 and system memory 402 are coupled to

system bus 403. Bus 403 is used for communicating data among

various components of system 111. Network adapter 405 coupled

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to system bus 403 is connected to network communications medium 115, allowing system 111 to communicate with other systems in the information processing network." See Axberg at column 6, lines 26-34 (emphasis added).

"Network class 502 is a container (collection) class for all of the primary objects (PhysicalDisks, Controllers, LogicalDisks, Hosts, UnknownDevices, Connections and Buses) contained in a single network image." See Axberg at column 8, lines 1-4.

"Port class 514 is contained by value inside of a concrete PhysicalDevice class. A Port object is used to contain the information on the location of a port by containing a reference to the corresponding PhysicalDevice and an identifier. The identifier stores the port number." See Axberg at column 9, lines 26-30.

"Host class 515 is used to define a host system, i.e., a system in which at least one internal controller or initiator adapter resides. Only a host system having such an I/O controller can be connected to a storage network." See Axberg at column 9, lines 31-35.

"Port class 514 is contained by value inside of a concrete PhysicalDevice class. A Port object is used to contain the information on the location of a port by containing a reference to

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the corresponding PhysicalDevice and an identifier. The identifier

stores the port number." See Axberg at column 9, lines 26-30.

Claim 9 claims a "management computer". The management computer in the

Axberg element is shown in Fig. 1 of Axberg as element 110. This element is shown separate

and distinct from the local agent element 111 and the storage network 101 in Figure 1. Thus, the

Office Action has cited to portions of Axberg that do not discuss a management computer. This

is clearly the case, for example, in the Office Action's citation of Axberg at column 6, lines 26-

34 which discusses host element 111. As is clear from Fig. 1, a host element 111 is not part of a

management computer (see "manager" 110 in Fig.1 shown separate and distinct from element

111. Thus, Applicants' counsel respectfully traverses the rejection of claim 9 as failing to teach

each and every element of claim 9 under 35 USC §102.

In regard to claim 10, the office action cited the following portions of Axberg as

allegedly teaching Applicants' claim 10 limitations.

"Network class 502 is a container (collection) class for all of the

primary objects (PhysicalDisks, Controllers, LogicalDisks, Hosts,

UnknownDevices, Connections and Buses) contained in a single

network image." See Axberg at column 8, lines 1-4.

"Port class 514 is contained by value inside of a concrete

PhysicalDevice class. A Port object is used to contain the

information on the location of a port by containing a reference to

the corresponding PhysicalDevice and an identifier. The identifier

stores the port number." See Axberg at column 9, lines 26-30.

"Host class 515 is used to define a host system, i.e., a system in

which at least one internal controller or initiator adapter resides.

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Only a host system having such an I/O controller can be connected to a storage network." See Axberg at column 9, lines 31-35.

"Port class 514 is contained by value inside of a concrete PhysicalDevice class. A Port object is used to contain the information on the location of a port by containing a reference to the corresponding PhysicalDevice and an identifier. The identifier stores the port number." See Axberg at column 9, lines 26-30.

"Connection class 513 is used to provide information on the bus or link that is connecting PhysicalDevice objects." See Axberg at column 9, lines 8-9.

Notably, the citation of column 9, lines 8-9 is not applicable to the claim element "transmitting said first connection information to a management computer." Rather, this quotation from Axberg merely refers to a summary of the characteristics of a bus. It has nothing to do with transmitting connection information to a management computer. A careful review of Axberg shows that this citation is really just referring to a particular object in a class library of objects -- namely the object associated with a bus. It is not teaching that connection information acquired by the preceding element in claim 10 ("acquiring first connection information, which contains a communication port identifier of said object computer, and a communication port identifier assigned to the communication port of said storage system, from said object computer") is transmitted to a management computer. Thus, for at least this reason the Axberg reference does not anticipate claim 10.

In regard to claim 11, the Office Action recited Axberg at column 8, lines 1-4 as teaching "receiving first connection information". Axberg only states the following at column 8, lines 1-4:

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"Network class 502 is a container (collection) class for all of the

primary objects (PhysicalDisks, Controllers, LogicalDisks, Hosts,

UnknownDevices, Connections and Buses) contained in a single

network image." See Axberg at column 8, lines 1-4.

Clearly, this citation does not teach that connection information is received. Thus, it particularly

does not teach that the connection information is received from the storage system, as required

by claim 11. All that this cited portion of Axberg teaches is a particular class used in Axberg.

Thus, for at least this reason, Axberg does not teach all the elements of claim 11. Thus, the

rejection of claim 11 is respectfully traversed.

In regard to claim 12, the Office Action cited Axberg at column 9, lines 8-9 as teaching

the element "means for transmitting said first connection information to a management

computer." As was noted above in the discussion of claim 10, this portion of Axberg does not

teach transmission of connection information -- particularly it does not teach transmission of

connection information acquired by the preceding claim element "means for acquiring first

connection information, which contains a communication port identifier of said object computer,

and a communication port identifier assigned to the communication port of said storage system,

from said object computer." Thus, as was similarly pointed out in regard to claim 10, Axberg

does not teach each and every element of claim 12. For at least this reason, the rejection of claim

12 under 35 USC §102 is respectfully traversed.

In regard to claim 13, claim 13 claims a management program for use on a management

computer. The management computer in the Axberg element is shown in Fig. 1 of Axberg as

element 110. This element is shown separate and distinct from the local agent element 111 and

the storage network 101 in Figure 1. Thus, the Office Action has cited to portions of Axberg that

do not discuss a management computer. This is clearly the case, for example, in the Office

Action's citation of Axberg at column 6, lines 26-34 which discusses host element 111. As is

clear from Fig. 1, a host element 111 is not part of a management computer (see "manager" 110

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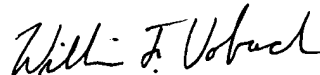Reply to Office Action of September 5, 2006

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in Fig.1 shown separate and distinct from element 111). Thus, Applicants' counsel respectfully traverses the rejection of claim 9 as failing to teach each and every element of claim 9 under 35 USC §102.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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